

IN THE CLAIMS

The current claims follow. For claims not marked as amended in this response, any difference in the claims below and the previous state of the claims is unintentional and in the nature of a typographical error.

1. (Previously Presented) A boost converter having voltage selectable modes comprising:

a selection terminal, wherein the selection terminal is associated with a voltage V_{in} ;

a capacitive boost circuit, wherein the capacitive boost circuit is utilized in a capacitive mode;

an inductive boost circuit, wherein the inductive boost circuit is utilized in an inductive mode;

a first comparator, wherein the first comparator is configured to compare V_{in} to a reference voltage V_{ref} and to select the capacitive mode if $V_{in} > V_{ref}$ and to select the inductive mode if $V_{in} < V_{ref}$.

2. (Previously Presented) The boost converter of claim 1, wherein the selection terminal is coupled to a voltage source in the capacitive mode and wherein the selection terminal is coupled to ground in the inductive mode.

3. (Previously Presented) The boost converter of claim 1, further comprising switch controller configured for performing a switching sequence, the switching sequence operative to cycle the selected capacitive or inductive mode through an idle phase, an energy storage phase and an energy transfer phase.

4. (Previously Presented) The boost converter of claim 3 further comprising a set of switches responsive to the switch controller to execute the switching sequence for the capacitive mode and a sub-set of the set of switches to execute the switching sequence for the inductive mode.

5. (Previously Presented) The boost converter of claim 3, wherein the switch controller further comprises a counter for receiving a clock signal and wherein the clock signal controls a transition from the energy storage phase to the energy transfer phase.

6. (Canceled)

7. (Previously Presented) The boost converter of claim 3 further comprising a second comparator for comparing a voltage drop over an external resistive element to a voltage reference in order to trigger a transition from the idle phase to the energy storage phase.

8. (Previously Presented) A power supply comprising:

a boost converter having voltage selectable modes, the boost converter comprising a first selection terminal and a second selection terminal;

a capacitive boost circuit, wherein the capacitive boost circuit is utilized in a capacitive mode;

an inductive boost circuit, wherein the inductive boost circuit is utilized in an inductive mode;

a mode selection circuit, wherein the mode selection circuit selects the capacitive mode if a voltage source is connected to the first selection terminal and selects the inductive mode if the voltage source is connected to the second selection terminal.

9. (Previously Presented) A method of DC/DC conversion using a boost converter having voltage selectable modes and comprising a selection terminal, wherein the selection terminal is associated with a voltage V_{in} , a capacitive boost circuit, wherein the capacitive boost circuit is utilized in a capacitive mode and an induction boost circuit, wherein the inductive boost circuit is utilized in an inductive mode, the method comprising:

comparing V_{in} to a reference voltage V_{ref} ;
selecting the capacitive mode if $V_{in} > V_{ref}$; and
selecting the inductive mode if $V_{in} < V_{ref}$.

10-11 (Canceled)